

Amendments to the Specification:

Please insert the following new paragraph at page 4, line 14:

--Figure 3 shows a sectional view through the gas sensor located in the exhaust gas system of an internal combustion engine.--.

Please replace the paragraph beginning at page 5, line 22 with the following amended paragraph:

--The circuit configuration according to the present invention functions as follows: First electrode 11 of gas sensor 10 is exposed to a gas to be analyzed. The gas may be an exhaust gas from a combustion process such as that occurring in a heating system operated with fossil fuels or in internal combustion engines, for example. In the following discussion, an exhaust gas from an internal combustion engine is assumed as an example, e.g., where the gas sensor 10 is located in an exhaust gas system 100 of the internal combustion engine as illustrated in Figure 3. The exhaust gas passes through gas channel 12 and through diffusion barrier 13 into measuring space 14, which together with reference gas space 18 forms a Nernst cell which shows an abrupt voltage change in the area of combustion with a stoichiometric air/fuel ratio corresponding to a lambda factor of one. Reference gas space 18 must be filled with a reference gas, which is oxygen in the case of the exhaust gas of a combustion process.--.